Aquarius 35 Medium and Aquarius 35 Wide

User Manual

This manual describes the following products:
Product numbers 0313 0750 and 0313 0755. Aquarius 35 fitting.

+99080180 rev. 2015.05.11.

Roblon

1.1 Product overview and packing list

When opening the box, the following items should be included:

Qty	Description	Position number	Item Number Focus	Item Number Wide
1	Lens housing	7	0313 0751	0313 0756
1	Screw joint	2	4300 2007	4300 2007
1	Fiber mount	4	4300 2008	4300 2008
1	Seal ring	1	4300 2009	4300 2009
1	Nut	3	9100 4213	9100 4213
1	O-ring	6	7100 0065	7100 0065
1	Socket set screw M3	5	9115 0033	9115 0033

1.2 Technical data

Fiber dimensions:	Ø2 – Ø6
Fitting Termination:	Fitting Termination or Compas Termination
Metal Housing:	EN / Din. W no. 1.4436 As recommended by the Danish Association for the Technology of Swimming Pools
Plastic used:	PVC and POM
IP class:	IP68. 1 Bar / 10 m water preassure
Weight:	90 g

1.3 Light Cone Angles

Product Type	Fiber Ø	In Air	In Water
Focus	2	17 - 36°	13 - 20°
	3	18 - 36°	13 - 27°
	4.5	19 - 33°	14 - 25°
	6	23 - 35°	17 - 26°
Wide	2	59°	38°
	3	59°	38°
	4.5	59°	38°
	6	59°	38°

2.0 Mounting instructions

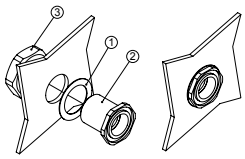
Aquarius Ø35 fitting is suitable for plate mounting or embedment.

2.1 Mounting in moulded pools / plate mounting

1. Placing: Select a level place on the pool wall having a diameter of minimum 35 mm to ensure a level base for the seal ring. Flatness must be within 0.05 mm, corresponding to a radius of 2500 mm. If no such place can be found, seal using silicone or a suitable alternative product.

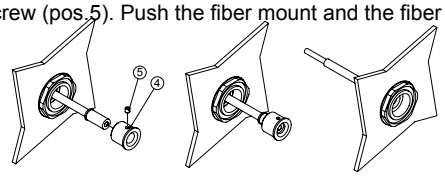
2. Bore a hole in the pool wall, min. Ø21 mm (max. Ø22 mm). Trim the edges, if necessary.

3. Mount the seal ring (pos.1) on the screw joint (pos.2) and place the screw joint in the hole made in the pool. Be careful to clean the hole and the area around it for dust and dirt. Mount the nut (pos.3) from the rear.

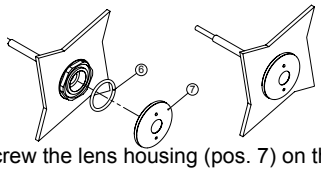


4. Hold the screw joint at the front using tool 0313 0758 (optional) while tightening the nut from the rear. To achieve appropriate compression of the seal ring, the nut should be tightened until any gap is removed and the approximately 20° further. A thread locker should be used, e.g. Loctite 222.

5. Push the fiber through the screw joint and mount the fiber mount (pos.4) on the fiber termination and lock it with the socket screw (pos.5). Push the fiber mount and the fiber back into the screw joint.



6. Place the O-ring (pos.6) in the groove in the screw joint front.
Check that groove and O-ring are clean.



7. Screw the lens housing (pos. 7) on the screw joint and tighten it using tool 0313 0758 (optional). Check that the sealing surface of the lens housing is clean.
To prevent the unintentional dismantling of the fitting, the lens housing thread should be locked with a thread locker, e.g. Loctite 222.

2.2 Embedment

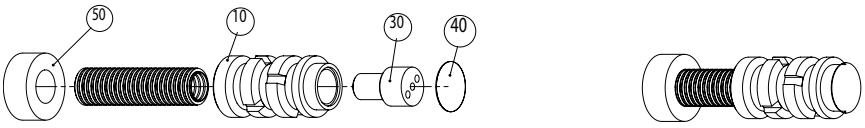
Roblon's aquarius fittings can be mounted in concrete pools using various methods. Below two methods are described: direct embedment and retrofitting.

The methods described presuppose that you have bought Roblon's embedment kit for Aquarius 35 (Item Number 0313 0759):

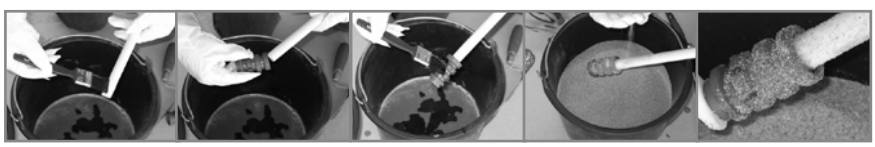
Qty	Description - Embedment Kit Aquarius 35	Position number	0313 0759
1	Embedment unit	10	(4300 2011)
1	Protective plug	30	(4300 2013)
1	Tape disc	40	(4300 2012)
2	Plastic foam disc	50	(4300 2010)

2.2.1 Direct embedment

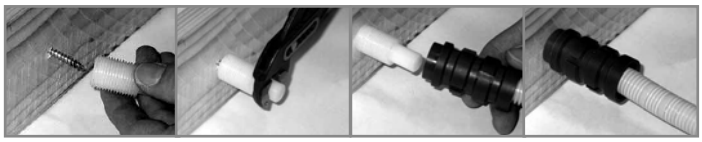
1. Connect the embedment unit (pos.10) to the fiber conduit pipe. Use either Ø20 mm plain conduit pipe or Ø20 mm fluted pipe. Screw the pipe on the embedment unit while pressing them together.



To ensure a good adhesion in the embedment process, paste the embedment unit holding the fiber conduit pipe with epoxy and sprinkle it with silica sand. As an additional measure, we recommend to paste the joint between the embedment unit and the conduit pipe with epoxy to ensure watertightness, which is a must not only during concreting, but also afterwards as a safeguard against water penetration if a non-waterproof concrete is used.

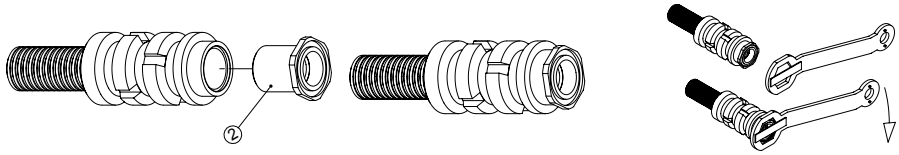


2. Use the protective plug delivered (pos. 30) to position and fix the embedment unit and the fiber conduit pipe in the concrete formwork. Fasten the plug in the formwork in the following way: Bore a Ø4 mm hole in the formwork and screw in a Ø5 mm wood screw so that it sticks out about 25 mm on the other side. Screw the plug on the formwork (use the centre hole in the plug and screw holding the plain part). This way it will be easy for example to line up a number of fittings or to mount them in a pattern.

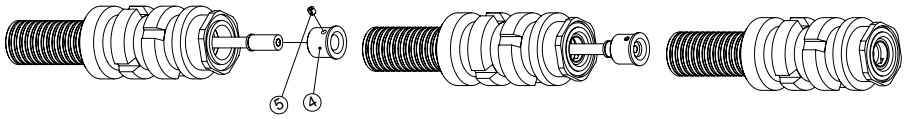


Note that the direction in which the embedment unit is pointing will decide the direction of the light cone. In some cases it will be necessary to mount supports for the fiber conduit pipe. Remove the screw holding the plug before removing the formwork. If the pool wall requires dressing, the plug should not be removed until afterwards. Remove the plug by means of the front holes.

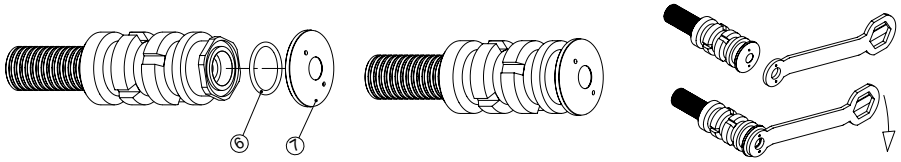
3. Mount the screw joint (pos. 2). Pack the thread using for example Loctite 55, and screw the screw joint on the embedment unit using tool 0313 0758 (optional) just until the flange of the screw joint bears against the pool wall. Be also careful not to pack the thread too hard. The tightening torque must be kept under 200 Nm. We recommend moreover the use of a thread locker, e.g. Loctite 222.



4. Push the fiber through the screw joint. Mount the fiber mount (pos. 4) on the fiber termination and lock it with the socket set screw (pos. 5). Now push the fiber back into the screw joint.



5. Place the O-ring (pos. 6) in the groove in the screw joint front. Check that groove and O-ring are clean.



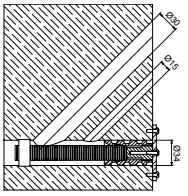
6. Screw the lens housing (pos. 7) on the screw joint and screw it home using tool 0313 0758 (optional). Check that the sealing surface of the lens housing is clean.

   To prevent the unintentional dismantling of the fitting, the lens housing thread should be locked with a thread locker, e.g. Loctite 222.

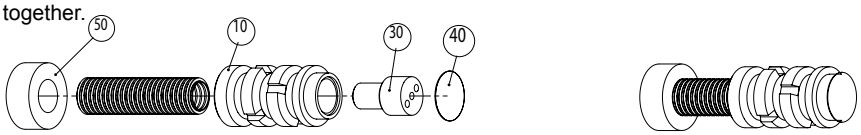
2.2.2 Retrofitting – embedment in bored hole using Epoxy

The moulding material could for example be Sika Floor 156. If necessary, adjust the consistency by adding silica sand (grain size 0.01) and stone dust.

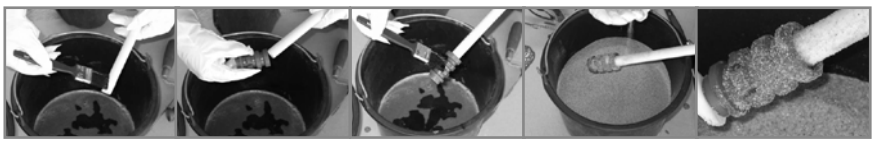
1. Bore a hole for the fitting Ø34 – Ø50 mm. Bore moreover an inlet hole and a vent hole at an angle to the fitting hole.



2. Connect the embedment unit (pos. 10) to the fiber conduit pipe. Use either Ø20 mm conduit pipe or Ø20 mm fluted pipe. Screw the pipe on the embedment unit while pressing them together.



To ensure a good adhesion in the embedment process, paste the embedment unit holding the fiber conduit pipe with epoxy and sprinkle it with silica sand. As an additional measure, we recommend to paste the joint between the embedment unit and the conduit pipe with epoxy.

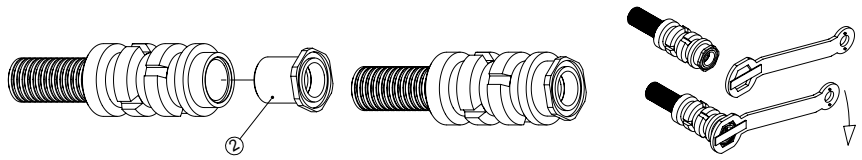


3. Place and fix the embedment unit and the fiber conduit pipe in the hole. Mount the plug (pos. 30) to ensure a clean thread, among other things. The embedment kit includes a plastic foam disc (pos. 50) fitting the fiber conduit pipe and a Ø50 mm hole. This will function as the rear sealing and as a guide for the conduit. A plate fastened to the pool wall and the plug in the embedment unit will function as front sealing and at the same time fix the unit firmly.

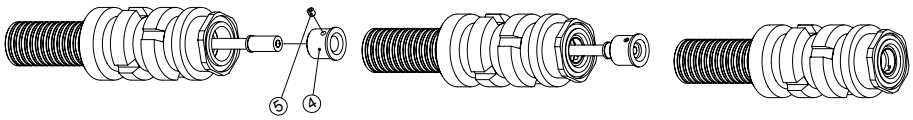
   In a tight fit hole, as shown in the sketch, the foam disc needs to be cut to size to fit in the hole.
   The included extra foam disc could, after being cut to size, functions as front sealing and guide when placed on the embedment unit, flushing the front wall.

   Pour the epoxy through the inlet hole until it shows in the vent hole. Note that the direction in which the embedment unit is pointing will decide the direction of the light cone. Remove the cover plate and dress the front with epoxy, if required. Mount the tape disc (pos. 40) to protect the front and the thread. Remove the tape disc and the plug after hardening.

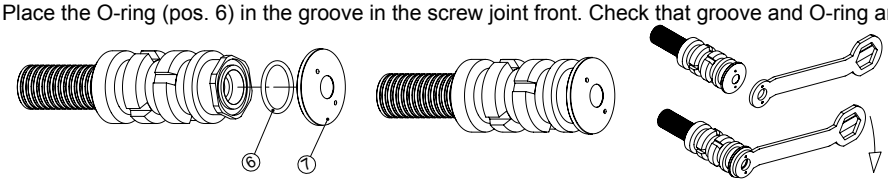
4. Mount the screw joint (pos. 2). Pack the thread using for example Loctite 55, and screw the screw joint on the embedment unit using tool 0313 0758 (optional) just until the flange of the screw joint bears against the pool wall. Be careful not to pack the thread too hard. The tightening torque must be kept under 200 Nm. We recommend moreover the use of a thread locker, e.g. Loctite 222.



5. Push the fiber through the screw joint. Mount the fiber mount (pos. 4) on the fiber termination and lock it with the socket set screw (pos. 5). Now push the fiber back into the screw joint.



6. Place the O-ring (pos. 6) in the groove in the screw joint front. Check that groove and O-ring are clean.



7. Screw the lens housing (pos. 7) on the screw joint and screw it home using tool 0313 0758 (optional). Check that the sealing surface of the lens housing is clean.
   To prevent the unintentional dismantling of the fitting, the lens housing thread should be locked using a thread locker, e.g. Loctite 222.

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